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BI-MONTHLY

REPORT

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* In This Issue *

Docket 87-14, 220-222 MHz Status More on §Part 15 RF Devices Computer Info Service Access Fees Amateur Radio Comes to Thailand Ham Radio Call Signs to 10/1/87 Pirate FM Broadcast Radio New DXCC Country Coming? Cellular Phone Biz Booming! Innovative Emerging Electronics HDTV, Japan & U.S. Progress Personal Computing News! Hams Assist Hospitals During Quake The Campaign for 225 MHz FM2 and much, much more!

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New Technology Needs Pressure Ham Radio

While most amateur radio regulatory news usually has its beginnings in the FCC's Private Radio Bureau, lately another FCC branch has been active in rulemaking that impacts ham radio. When it comes to telecommunications, the FCC's Office of Engineering and Technology (OET) is, in effect, the nation's long range planning arm. FCC commissioners usually rubber-stamp final documents. The important job of developing rulemaking really rests with the their staff. OET is the Commission's technology expert.

The FCC is mandated by the Communications Act of 1934 to provide for the wider use of telecommunications. With the exception of a tiny sliver in the 900-MHz band, the entire usuable radio spectrum is already assigned. OET's job is to introduce or expand new promising technologies as they develop while disrupting existing radio services at a minimum. It's a thankless job.

Since, for all practicable purposes, the radio spectrum is already allocated, OET seeks to respond to what they feel is the greater public interest. They do this in a variety of ways. Among them: allowing temporary experimental operation, reallocating existing - but underused - radio spectrum to a new technology or service ...or by sharing spectrum with an existing service.

The Amateur Radio Service is allocated a whopping seventy megahertz plus of prime radio spectrum under one gigahertz making it the nation's largest spectrum holder per authorized user. In this digital age of startling technical breakthroughs, it is little wonder that Amateur Radio Service spectrum is constantly under attack. And like the native American Indian who was herded onto reservations, had the amateur radio pioneer not laid claim to the radio spectrum first, we would not have the spectrum we now enjoy. It is a constant battle to retain it.

I spoke this past week with two engineers at OET, John Reed in the Technical Standards Branch, and Julius Knapp Chief of the Frequency Allocation Branch. Reed is the author of the NPRM (Docket 87-389) that seeks to provide for the wider use of unlicensed low power radio devices. Knapp wrote the NPRM (Docket 87-14) that proposes to reallocate spectrum from the 220-225 MHz. band to ACSB narrow-band land mobile communications. Both matters impact the Amateur Radio Service since both allow operation in the present ham bands.

STATUS OF DOCKET 87-14....

Docket 87-14 seeks to provide spectrum for 200 pairs of 5 kHz wide business use

October 15, 1987

channels between 220 and 222 MHz. OET could not have allocated the 216-220 MHz band to land mobile use, since by international agreement this operation is not permitted in ITU Region 2. WARC-79 reallocated 216-220 MHz to the Maritime Mobile and Fixed Service.

When the Government Radiolocation Service vacated 216-225 MHz, OET began planning a permanent allocation for this band. Amateurs had only been granted the temporary use of 220-225 MHz band.

The decision to re-examine the 220-MHz band really was not unanticipated. In implementing the Final Acts of the 1979 Geneva World Administrative Radio Conference (on November 18, 1982) the FCC clearly adopted and published: "The current and future requirements for the 220-225 MHz band are undefined at this time. Therefore a joint FCC/NTIA working group has been established to study the spectrum requirements and develop a proposed allocation for this band. Until this study has been completed, we are proposing to maintain all three allocations, amateur, fixed and mobile, as primary allocations. However, we will not implement fixed and/or mobile services pending further rulemaking." The handwriting was thus on the wall five years ago! Few amateurs apparently

On February 12, 1987, OET, released Docket 87-14. It represented the Commission's permanent proposal for the 220-225 MHz band. Land Mobile was to get 220-222, the Amateur Radio Service, 222-225 MHz. Amateurs were shocked! Few were aware that this could happen.

The public comment period has now closed and the FCC is in the process of making a final decision on the band. I called Julius Knapp, Chief, FCC Frequency Allocations

Branch this past Friday to find out how Docket 87-14 was progressing. It is the job of his staff to review the comments and draft the final document for the Commissioners to consider and rule on.

Knapp told us that no firm schedule had been set for the final rulemaking on

Docket 87-14 but that we should see something "...probably the end of this year or the first of next..." He said the reaction from the Amateur community was not unanticipated. "The staff is now analyzing the comments, particulary the present extent and variety of uses of the band. We are extracting basic issues. Some comments are extremely useful."

Knapp said he was hesitant to go into greater detail, since no decisions had yet been made. "The comments," he said, "amount to twenty-one volumes, each four inches thick. Every one is read, although a great many have basic formats that apparently respond to 'campaigns.' We will recommend one of three options ...either to adopt, decline to adopt ...or to modify our original recommendations for the band."

He emphasized that amateurs had only been granted use of the 220-MHz band on a temporary basis. "Frequency allocation matters are very difficult," Knapp said. "We want to resolve this band once and for all."

UNLICENSED DEVICES ON 902-928 MHz BAND

FCC's John Reed told us that the comment and reply dates on NPRM (Docket 87-389) seeking to relax the §Part 15 rules which permits unlicensed RF devices has now been determined. Comments must be filed by December 4th, replies by January 4, 1988.

All low power commercially manufactured \$Part 15 devices including kits will be subject to the FCC equipment authorization procedures except home built devices that are not marketed.

The following frequency bands are specified as unlicensed "general use Consumer Bands" and higher field strength without channelization or bandwidth restrictions apply:

13.553-13.567 MHz. 26.96-27.28 MHz. 40.66-40.70 MHz. 49.82-49.90 MHz. 902-928 MHz., 50 millivolts/meter @ 3 meters 2400-2483.5 MHz., 250 millivolts/meter @ 3m. 5725-5875 MHz., 50 millivolts/meter @ 3m. 24.0-24.25 GHz., 250 millivolts/meter @ 3m. The last four of these bands are also Amateur Radio Service bands. Currently unlicensed

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neW5 REPORT

Page #3

October 15, 1987

§Part 15 general operation is not allowed in these amateur bands. The new rules will allow a field strength level of 50 to 250 millivolts/meter at 3 meters.

Since the 902-928 MHz amateur band plan provides for repeater inputs between 907 and 910 MHz, I asked Reed what happens when an unlicensed \$Part 15 device with an anticipated range of 1,000 feet activates an amateur repeater. Couldn't a very short range device could become a mechanism for unlicensed amateur repeater operation?

"What effectively happens," Reed said, "is interference is caused to the repeater. We will treat this as simply an interference case. There is a provision that requires the operator to correct any interference caused by the device. Part 15 operators have no status whatsoever. They will be required to take the device off the air."

"A label will be required to be on the device itself. This label says that 'This device complies with FCC rules §Part 15. Operation is subject to the following conditions. 1. This device may not cause radio interference. 2. This device must accept any interference received including interference that may caused undesired operation."

I asked Reed what happens when an individual who has no knowledge of FCC radio rules, buys a \$Part 15 device and then is told he can't use it. "He has a problem," Reed said.

When asked about how popular §Part 15 devices would be in the 902-928 MHz ham band, Reed replied, "I see that as the primary band that they are going to be going to. ... because the propagation effects inside a home are so excellent. We have been getting lots of demands for high speed data networks and video distribution systems - mostly wide bandwith systems. I am hoping that because of the wide band width requests that we are getting, it is going to decrease their potential for interference to the amateurs. There will be very little radiation on a specific frequency. There are tens of millions of Part 15 presently operating on 49-MHz, but because of the short range, you can't find them.

COMPUTER INFORMATION SERVICE FEES

Thousands of computer buffs have written the FCC and Congress begging them not to raise telephone rates for computer information communications. The FCC has proposed to eliminate the 1983 Access Charge Exemption for enhanced service providers. Access charges allow local telephone companies to recover the cost of switching long-distance calls over to their local networks. The fee on computer information, data base and electronic mail services could run as high as \$5 an hour for each customer.

The FCC maintains that these costs are now unfairly paid for by long distance customers. The information services now pay lower costs for private lines. It could raise the cost of telephone data delivery about triple for such services as CompuServe (with 375,000 subscribers) and The Source (100,000). Both information services mounted innovative on-line letter writing campaigns against the access fees.

Opponents of the FCC plan told a Congressional panel that the higher telephone fees on electronic networks would harm the emerging information services industry far greater than the slight one-percent overall reduction in long distance rates that would result. They contended that the FCC incorrectly assumes that the information services industry has matured to the point where it can withstand these cost increases.

"More than 750,000 home computer users would be driven away from electronic networks where they read stock reports, news stories, call up airline schedules ...even line up blind dates", said a spokesman for the Boston Computer Society, the nation's largest couputer group with some 250,000 plus members.

An avalanche of over 5,000 letters were received by the FCC prior to the September 24th comment deadline! Even other government agencies seem opposed to the fees. Both the GSA and NTIA have rejected the proposal. The campaign apparently is working! The FCC has already postponed the January first implementation date.

Page # 4

plus postage

October 15, 1987

AMATEUR RADIO COMES TO THAILAND

After 20 years without amateur radio, a ham radio law has finally been enacted in Thailand. The Deputy Director General of the Postal Telegraph-Telecommunications Department (PTT) has signed regulations into law that are to govern amateur radio in Thailand.

The Radio Amateur Society of Thailand (RAST), an IARU member since 1968, has waged a strong campaign to convince department officials, the military and the police that amateur radio poses no threat to Thailand's national security.

An amateur radio and computer club has been formed in HS3-land and a club station will be installed as soon as they have the required 50 members. Three U.S. extra class level amateurs have been located and the W5YI-VEC program has arranged for U.S. FCC testing in Bangkok - the first ever in Thailand. The plan is to license foreigners (for example, Americans stations in Thailand) and then have them receive HS call signs on a reciprocal basis.

The U.S. Department of State has been contacted by Congressman Jim Chapman of Texas (who serves on the House Science, Space and Technology Committee) regarding implementation of reciprocal licensing between the U.S. and Thailand.

We have received a certified translated transcript of Thailand's new amateur radio rules written by "The National Co-ordinating Committee for Radio Frequency Allocation and Administration." The objectives of Thailand's new amateur service are:

(1.) "to promote social benefits and national security,"

(2.) serve as a "reserved public communication network in time of emergency or disaster."

(3.) develop "communication science by radio frequency"

(4.) "train radio operators for more skill and experience"

(5.) "increase the number of reserved radio operators for use in time of emergency"

(6.) "promote the name of Thailand among international radio circles."

Amateur radio operators in Thailand must be a Thai national, 15 years of age, hold a PTT Department certificate and be screened "in accordance with the National Security Regulations."

There are three basic amateur classes, Basic, Intermediate and Advanced amateur radio operator - each requiring a PTT examination. "HS" prefix call signs will be issued. The PTT may issue Basic licenses to some categories of persons by other than testing. There are some 2,500 "volunteer radio licenses" that will be converted to Basic operator licenses.

Amateurs (including Thai nationals) licensed by countries holding reciprocal licensing arrangements with Thailand may (at PTT discretion) be issued equivalent Thai amateur operator certificates. Amateur stations operated by foreigners will be permitted only on a case-by-case basis.

Only licensed amateur radio operators may install an amateur station at a specific location or in a specific vehicle.

Stations are inspected by Thai licensing officers (1.) prior to operation, (2.) when changing station "characteristics", (3.) for interference purposes, (4.) or at any reasonable time. Logs of all communications must be kept for one year for inspection by licensing officers.

Commercial transmissions are prohibited as are secret codes, rude/unpolite, illegal, music, interference, unauthorized communications, fake call signs, unauthorized operators and the "snatching away of signals from others."

Stations operated by Intermediate or Advanced amateurs or on other than 2-meter (144-146 MHz) frequencies must be from a club station. Individual HF operation from one's home is not authorized.

Amateur equipment must conform to the radio rules, pass inspection and display a PTT approval symbol. Only licensed amateurs may listen to other than AM/FM, TV broadcast bands. Amateurs may not listen outside and nand low-riced student manuals? We have them Not Every manual contains every word-lor-word question,

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neW5 REPORT

October 15, 1987

of the amateur bands.

BASIC amateurs are allowed voice-mode 144-146 MHz 10-watt operation only, hand-held units: 5 watts. Telegraphy knowledge is not required.

Existing "Volunteer Radio Operators" (including the King of Thailand who is VR-009) qualify for the Basic operator license by passing a PTT training course. Volunteer Radio Operators are individuals who have passed a written examination in radio theory and operating procedures under a program initiated by the PTT in 1981. They operate on six individual frequencies in the 2-meter amateur band using two letters, VR followed by a serial number.

INTERMEDIATE amateurs: 7000-7100, 14000-14350, 21000-21450 and 28000-29700 kHz - voice or telegraphy with approved power levels not specified. Telegraphy required, speed not specified.

ADVANCED amateurs: same as Intermediate but unspecified "higher velocity" telegraphy requirement.

American embassy official, Fred Laun, K3ZO, who used to be HS1ABD and a RAST officer writes that "Over the past 20 years there have been individual 'HS' hams on HF from time to time, mostly foreigners, thanks to the late Gen. Kamchi Chotikul, HS1WR, "Mr. Ham Radio" of Thailand, who due to his high position in the government was able to serve as a protector for amateur operation in the absence of a regular amateur radio law."

"His sudden death a few years ago threw everything into turmoil and caused individual amateurs to be asked to stay off the air. Thanks to Kam's widow, Mayuree, HS1YL, and to RAST VP Yongyuth Napasab, HS1DS, amateur radio is now codified into law in Thailand, something that seems unbelievable to someone like myself who first arrived in Thailand in 1968 to find great fear and skepticism about ham radio on the part of higher authorities there."

"Foreigners in Thailand are now scrambling to have their embassies conclude reciprocal agreements with Thailand."

AMATEUR RADIO CALL SIGNS

issued as of the first of October:

Radio	Gp."A"	Gp. ¹¹ B ¹¹	Gp."C"	Gp."D"
District:	Extra	Adv. Te	ch/Gen.	Novice
Ø	WBØP	KEØRA	NØIOE	KBØBFX
í	NN1G	KC1GK	NIFFS	KA1RBI
2	NZ2C	KE2CR	N2HPF	KB2ELP
3	NK3P	KD3ER	N3FUB	KA3SFP
4 (*)	AB4DU	KK4RT	N4RGZ	KC4BWE
5 (*)	AA5CU	KG5DZ	N5LMX	KB5EKO
6 (*)	AA6EY	KI6ZI	N6QLO	KB6UGY
7	WF7Z	KF7DZ	N7JYC	KB7CYQ
8	NY8Q	KE8OA	N8IVJ	KB8DGH
9	NU9W	KE9GR	N9GXS	KA9ZMJ
N. Mariana I.	AHØE	AHØAC	KHØAI	WHWAAH
Guam	KH2G	AH2BR	KH2CZ	WH2ALF
Johnston Is.	AH3A	AH3AC	KH3AB	WH3AAC
Midway Is.		AH4AA	KH4AD	WH4AAF
Palmyra/Jarvis AH5A				
Hawaii	(**)	AH6IM	NH6LY	WH6BUU
Kure Island			KH7AA	
Amer. Samoa	AH8C	AH8AD	KH8AE	WH8AAW
Wake Wilkes	Peale	AH9AC	KH9AD	WH9AAH
Alaska	(**)	AL7JG	NL7LH	WL7BPN
Virgin Is.	KP2T	KP2BK	NP2CF	WP2AFS
Puerto Rico		KP40K	WP4MA	WP4HOW
MOMBO + - All O has I format call gigns have				

NOTES: * = All 2-by-1 format call signs have been assigned in the 4th, 5th and 6th radio districts. 2-by-2 format call signs from the AA-AL prefix block now being assigned to Extra Class amateurs.

** = All Group "A" (2-by-1) format call signs have been assigned in Hawaii, Alaska and Puerto Rico. Group "B" (2-by-2) format call signs now being assigned Extra Class.

- The designer of the new logo that you see on this newsletter is Debbie Weir, WA2LGZ, a professional graphics artist from Long Island, New York. She did a super job!
- The FCC has acknowledged receipt of two petitions from Ray K. Adams, N4BAQ, filed on behalf of all VEC organizations seeking to amend §Part 97.21(b) "to permit, but not require, telegraphy tests to contain all the letters of the alphabet, numerals (1-9, punctuation and pro signs" and §Part 97.29(c) "to provide a telegraphy test period of a minimum of (rather than exactly) five minutes." The petitions were assigned RM-6094 and RM-6095. Comment period closes on 10/24/87.

neW5/ REPORT

October 15, 1987

- More information is seeping out on Value Radio, the national shop-at-home radio network. They will have a talk show format. Celebrity guests will also push products which can be bought via a toll-free number. (Jane Fonda will pitch her exercise tapes, Telly Savalas will speak on behalf of a travel club he co-owns, etc.) Originating from Chicago, the satellite delivered home shopping show will air between midnight and 7 a.m. More than 100 AM stations have signed up, a total network of 200 is expected. AMers look upon the shopping service a means to increase income during the 'off' hours.
- Black & Decker, the small power tool people, is entering the home alarm field. They will market a \$499 wireless system. A signal is tranmitted to a control console that dials the police when a door or window is opened.
- Sony has introduced a clock radio that allows consumers to wake themselves up to their own recorded message stored on a chip!
 Sony and Mitsubishi have developed low-cost (\$350-\$400) still-video phone systems that transmit and receive still images over existing phone lines. Now you can see who you are talking to!
- Software house, <u>DA Systems</u>, has created the <u>DASnet</u>, an electronic mail network that ties 18 different electronic mail systems into one. Individuals will pay \$4.50 a month plus usage. A one page letter costs about 50¢.
- The FCC has denied and dismissed the application of Aeronautical Radio, Inc. to construct a satellite based global voice and data system for airline communications, surveillance and navigation. The AvSat System was to have provided all air traffic control ... even passenger communications and electronic mail receipt and delivery. The proposal was supposedly technically flawed, financially unsupported and inconsistent with the FCC spectrum allocation. Fifteen airlines had supposedly committed for the new service.
- Portland, Oregon, police have arrested Brian G. Stone on charges of modifying cable television converters to receive all pay and pay-per-view services without charge. Stone supposedly altered hundreds of Zenith

addressable converters at \$100 to \$150 each. He was so busy he carried a beeper. Stone was apprehended when police set up a sting operation. The offense is being looked into by the U.S. Attorney for prosecution under the cable tampering provisions of the Cable Communications Act.

- Congress is now set to act against sexually explicit telephone recordings since the FCC has been unsuccessful after four years of trying. The FCC got involved in 1983 when Congress directed the agency to develop a method of limiting minor access to the ser-The adult messages are part of the Bell's '900, 976' pay-per-listen program. In most parts of the country, callers must have prearranged access code or credit card numbers The New York Telephone System, however, can't handle codes. The FCC suggested scrambling adult messages. While some critics maintain that phone companies really don't want to rid themselves of the recordings, New York Telephone (which grosses some \$10 million a year on dial-a-porn) flatly said they would quickly give up the revenue if they could legally discontinue the service and be held harmless. At least three Congressional bills are now being drafted. One would free telcos from common carrier responsibilities so they could drop any subscriber. The American Civil Liberties Union, however, said that a subscriber initiated "technological blocking device" is the best solution ... that an outright ban on dial-a-porn would raise serious First Amendment censorship and personal privacy questions. At least one U.S. Attorney, contending that the writers of the Constitution never intended to protect pornographers, suggested that Congress might indeed want to test a total ban in the courts.
- The Sept. 22nd New York Times carried a rather amazing article about "Super Q Long Island's most powerful pirate." Every evening, Frank Stevens (a ficticious radio name), 28, fires up his home brew 250-watt broadcast station on 91.5 FM from his parent's toolshed after WNYE-FM signs off. He is assisted by four pirate buddies. Stevens, a VCR technician and part time commercial disk jockey, has operated the pirate broadcast station for 10 years without getting caught by the FCC!

- Angel Castillo, the top ranking Hispanic editor of the Miami Herald has quit charging the newspaper with censoring an account of a controversy involving Radio Marti. The newspaper disagreed with several statements concerning domestic use of Radio Marti programming. Radio Marti is a government station that broadcasts news and entertainment to Cuba. Meanwhile, the U.S. government is now looking into beaming television news to Cuba.
- DXers are wondering if a section of the Western Sahara will be approved as the next new DXCC country. An application has been sent to the ARRL DX-Advisory Committee for separate DXCC country status for the Democratic Saharwi Arab Republic, RASD, which came into existence in 1976. The RASD has a government different from Morocco which rules the balance of Western Sahara. While not officially recognized by the United Nations, according to The DX Bulletin, the RASD does have formal diplomatic relations with many different countries.
- Has the U.S. government violated the Constitutional rights of news journalists? The Department of Defense has taken the position that it has the right to control the images taken by remote sensing satellites - cameras in orbit. News organizations say the DOD has no right to arbitrarily limit press coverage guaranteed by the First Amendment because a remote sensing satellite might inadvertently photograph something they consider classified.
- The cellular phone business is booming, telephone hardware prices are nosediving and mobile phone monthly charges and costs per minute are remaining the same. That's the bottom line of a study by Information Enterprises of St. Louis. There are now more than 800,000 cellular phones in the U.S. That number will rise to 3 million by 1990. Average price today of a cellular car phone is \$1,400 opposed to 1985's \$2,300, and \$2,000 last year. Some car phones can be bought for \$900 or less! The average monthly phone bill remains between \$100 and \$150, about 50¢ a minute ... same as three years ago. Analysts say that by 1990, cellular phones will cost under \$500. It's hard to believe that cellular car phones have been around only since 1983!

- If you read between the lines, cellular spectrum could be used down the road for other auxiliary services such as point-to-point transmissions. FCC Dennis Patrick is pushing for more rule flexibility to allow cellular spectrum to better meet marketplace needs.
- We don't know if the U.S. is ready for this, but Charlie Finley, former Oakland Athletics baseball team owner, wants to create a new football league. NAFL, North American Football League, games will be broadcast nationwide solely through cable TV outlets. Finley had a meeting last month with several cable operations companies trying to rally support.
- Starting last month, instantaneous twoway interactive television technology is being tested in more than 125,000 Chicago-area homes. According to J.C. Penney, a cable channel becomes a "Teleaction Electronic Mall. Viewers telephone a local number and an identification code punch in accesses a Tandem control computer. Users go through "menus" via the telephone keypad. A second later, still pictures with background sound and narration appear on your TV. Teleaction will be a wide-scale retail service that gives viewers access to "electronic shops." Many retailers have already signed up including Ticketron. Users charge purchases also via keypads.
- Another interactive television system called "TV Answer" could have endless applications. It uses low-power 20 watt RF transmitters to connect home televisions with local receiving stations. The "TV Answer System" can collect as many as one million responses per minute at each local collection site. You will be able to order view-on-demand programming by answering a message that crawls at the bottom of your TV screen. Children can enjoy its educational applications by correctly answering questions posed on such shows as Sesame Street.
- France is set to export its national "Minitel" videotex system to the United States. They have already opened up offices here. About 3 million French access "Minitel" from "free" little brown terminals with 7 inch screens ... or personal computers. The entire

\$3.00 plus postage 10 p tost 500 each manual.

\$4.00 D0 \$1.25

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neW5 REPORT

October 15, 1987

French phone book is available on "Minitel" - as is just about every conceivable information service ...even a soft-porn dating service! Now that the Bell operating companies can legally offer their network services to information providers, a joint venture with France appears certain. The phone companies do all the billing and share the revenue with the information provider. The two-way "chat lines" are the most popular in France.

- Japan plans to run a nationwide test of their high-definition TV next year. For the first time, motion picture quality will be shown on home television. Japan has spent some \$500 million on their "Hi-Vision" HDTV development. HDTV receivers and commercial direct-to-rooftop satellite programming is scheduled for 1990. While it appears likely that the Japanese HDTV may eventually find its way into U.S. homes, there are American systems that have the advantage of being compatible with present day U.S. sets. The National Association of Broadcasters has formed the Broadcast Technology Center, a research center committed to developing their own low cost broadcast HDTV called Advanced Compatible Television. The GE-patented ACTV would allow high resolution TV to be introduced the same way that color and stereo TV sound were phased in - by being received on both old and new sets. The ACTV system offers 1050 horizontal scanning lines twice today's 525-line resolution. Older sets would simply get every other line resolution.
- owners are increasingly viewing more cable programming. Viewers watched broadcast television programming 46% of the time in cabled homes during July and August down from 52% a year earlier. Basic cable share rose from 17% to 22%, pay cable networks increased share from 11% to 13%. "Superstations" retained their 9% viewing share. The average of all TV households watched 45 hours, 54 minutes of programming, the average cabled household, 50 hours, 49 minutes.
- Gee-TE! HSN, the Home Shopping Network has filed a gigantic \$1.5 billion lawsuit against GTE alleging that its faulty service cost them \$500 million in sales. HSN contends it never received 50% of its incoming calls.

- Personal computer makers expect big sales between now and Christmas! The big guns, of course, are Apple Computer, IBM and Tandy. each will spend more than \$10 million on advertising campaigns. The big sellers will be IBM's new PS/2 line, Apple's new MacIntosh models and new 286/386-chip PC's from Tandy and Compaq. IBM's Personal System/2 sales have taken off big ... accounting for 38.2% of IBM's microcomputer sales. They have shipped over 1 million PS/2's this year. StoreBoard, a Dallas research firm, forecasts that 750,000 of the 2.2 million PC's sold this year will be sold between October 1st and year end.
- Fighting the big three will be the IBM clone makers dancing the "how-low-can-you-go" limbo. A new family of IBM PS/2 Model 30 clone chips from "Chips & Technologies, Inc." increases clock speed 25% (to 10-MHz) and cuts chip count in half (from 45 to 25).
- Dick Tracy was right! Apple Computer's CEO John Sculley predicts that in the 1990's, sixty to seventy percent of the population will be using personal computers the size of pocket calculators or wristwatches to communicate with each other via central computers. "They will be so easy to use that consumers won't even be aware of the technology involved. Speech recognition will be so advanced that simple voice commands will initiate the process."
- Local independent broadcast stations won't be sent to Siberia (that's the far end of the cable channel line up) under a bill cosponsored by Rep. Al Swift (D-WA). He says the FCC should regulate cable alignment.
- The ARRL has published its first "NCJ National Contest Journal" an every other month newsletter directed at HF contesters. A promotional mailing was made to 2,500 known contesters identified through ARRL records. Editor is Randy Thompson, K5ZD, (P.O. Box #11439, Pittsburg, PA 15238)
- General Instruments has made some software "adjustments" enabling them to turn off "three musketeer" chips illegally installed in Videocipher II decoders allowing backyard dish owners to receive pay programming free.

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- movel new \$39.95 cordless telephone device that lets you use your cordless phone to remotely operate your radio transceiver! Now you can operate your ham rig while mowing the grass ...or whatever! You simply plug the base unit of your cordless phone and the microphone input and speaker output of your ham rig into the MFJ-630 interface and you are ready to go! (MFJ Toll free: 1-800-647-1800)
- No free lunch double standard! The FCC received word from the Office of Government Ethics that Executive Branch employees are prohibited from having their lunch tabs picked up by anyone who has an interest in FCC actions ...including news reporters. The action stems from a 1965 Executive Order signed by President Lyndon Johnson. On the other hand, the Judicial Branch recently liberalized its rules to allow House members to accept up to \$50 of food and drink from lobbyists at one sitting up from \$35!
- Trintex, a joint videotex venture between IBM and Sears Roebuck plans to build several personalized features into its new system including a method of allowing subscribers to send personal messages to syndicated columnists who write especially for the system - including Howard Cossell! The new telephone-accessed system, to be called Prodigy, will make home shopping, news, financial and travel services and computer entertainment available 24 hours. Prodigy will carry advertising especially customized to the individual users profile. The advertiser gets billed only for the number of targeted users reached. Hartford, Connecticut, has tentatively been selected as the Prodigy test market site. Trintex plans to have Prodigy in national distribution by 1990. Unlike most information services, there will be only one monthly fee regardless of the time spent on the system. Cost will be similar to basic cable television - about \$15.00 to \$20.00 per month.
- According to the Canadian Amateur Radio Federation, the Canadian government has not yet given the Soviets permission for the Joint Soviet-Polar Ski Expedition that will use amateur radio for communications during the long trek across its Arctic territory.

- being marketed in Japan and Europe, but not the U.S. At least not yet. Cost will be about \$1,200 when they are available. Many electronics manufacturers showed them recently at the recently concluded Summer Consumers Electronics Show. Reason? Congress is considering barring them and manufacturers don't want to be stuck with unsaleable inventories. HR-1384 calls for a one year ban on DAT sales. Recording companies maintain that direct recording of compact discs to DAT will produce an exact copy of master tapes amounting to legal piracy.
- A Dallas software house has written a \$99.00 computer program that writes headlines for advertising copy. The program can manipulate over 33,000 popular phrases into catchy headlines. (Salinon; 7430 Greenville Ave; Dallas, TX 75231)
- HDSCS, the Hospital Disaster Support Communications System headed up by April Moel, WA6OPS, of Fullerton, swung into action following the early morning October 1st earthquake that ripped southern Cali-Amateurs headed to their assigned hospitals to check on their need for assistance. All twenty-nine hospitals supported by HDSCS were checked within two hours of the tremor. The network continued operations for five hours following the quake. Communications were provided for two Orange County hospitals which temporarily lost telephone service. In addition, the net provided interhospital communications between two HDSCS member hospitals and two of their sister hospitals in damaged areas of nearby Los Angeles County.
- An article in the Omaha World-Herald tells about how a Chicago ham operator, David Miller, an engineer for WMAQ-TV in Chicago uses his radio equipment in conjunction with a U.S. government satellite to provide inhabitants of Pitairn Island with an emergency line to Chicago's Resurrection Hospital some 7,000 miles away. Pitcairn, a 1-by-2 mile island 5,000 miles east of Australia, has no doctor only a registered nurse. The radio/satellite link permits the nurse to consult emergency-room doctors on heart attacks, major infections and poisonings.

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Page #10

October 15, 1987

Vieny of Pitcairn's inhabitants are descendants of the nine British sailors who, in 1798, commandeered the Bounty, set the captain adrift and returned to Tahiti for the women who became their wives. The group later took refuge at Pitcairn. The events were made famous in the 1932 novel, Mutiny on the Bounty.

Toy-based children's programming is the big thing this fall. There are more than a dozen different ones. The Mattel Toy Company is shelling out \$500,000 an episode for its "Captain Power and the Soldiers of the Future" children's TV show. The program, which debuted last month, features four hightech pixel-controlled interactive toys that become part of the TV program action right in the living rooms of viewers. Congress is considering outlawing the concept as polluting the minds of youngsters. Another toymaker, Hasbro, is launching a new division to make a major play for high-tech toy supremacy. It's new product, code-named 'Nemo' due out next year.

THE CAMPAIGN FOR "FM2"...

...the effort to establish another FM radio broadcast band just above TV Channel 13 (and 220-225 Mhz ham band) is apparently still very much active. Their objective, led by Lawrence J. Tighe, is to provide a new FM home at 225-230 MHz for crowded AM daytime broadcasters. Tighe, president/GM of 2.5 kw WRNJ(AM), Hackettstown, N.J., is authorized only to broadcast during daylight hours.

Their November 1986 petition, professionally completed by a Washington, DC, law firm, suggested that AM daytimers be given the opportunity to operate simultaneously on their assigned AM daytime frequency and in the new FM2 band fulltime. There was even talk about the possibility of a new form of state-of-the-art digital FM.

As envisioned, FM2 would consist of 25 channels, 200 kHz in width with a 25 kw ERP serving a 30 mile radius. After a five year implementation period, the AM daytimer would have to choose between continuing only at 225-230 MHz FM - or remaining in the AM broadcast band.

FM broadcasting is internationally allocated in this band, but not in our hemisphere. On March 17, 1987, the FCC denied and dismissed the 225-230 MHz FM2 petition on the basis that the band is allocated to the military for "operations ...vital to national security interests." No one is really quite sure what kind of communications are held there. Neither the FCC nor the military will talk about it except to say "More specific information on systems operating in this band is not available to the public."

Advocates of FM2 disputed that the military was really using the spectrum or if they were, the loading was extremely light. A Petition for Reconsideration was filed.

An advertising campaign is now underway to rally support for FM2 from the broadcasting community. The W5YI Report responded to an FM2 advertisement run in Radio World to find out what they were up to. We had heard that the FM2 bunch were considering petitioning for "alternative spectrum" - the 220-225 MHz ham band!

We have now received a copy of FM2's Petition for Reconsideration filed by their Washington attorney, Lawrence Roberts. There is nothing in the petition to suggest that they are now aiming for the ham band. Their argument remains that the military only lightly uses the 225-230 MHz band.

The petitioners also maintain that the favorable response in the news media has not been considered by the FCC, nor the stated willingness on the part of the NTIA to meet with them to discuss FM2. The National Telecommunications and Information Administration is the White House advisor on telecommunications matters. NTIA director, Alfred C. Sikes, has said the FM2 concept "represents the kind of creative thinking we need to solve the pressing problems facing AM radio." The group is also dealing with Congress through members of the House Armed Services Committee. The effort for FM2 has set WRNJ back some \$25,000 in legal costs.

The FM2 Petition for Reconsideration is now being considered by the FCC who are expected to rule on it once again.